

REMARKS

Claims 1-3, 5-28, 30-35, and 37 are pending. Of these claims, Claims 1-3, 5-28, 30-33, and 37 have been allowed. The remaining claims, Claims 34 and 35, have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Appropriate revisions have been made to the claims to address those matters set forth in Sections 3 and 4 of the Office Action.

Claims 34 and 35 have also been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chilcoat et al., U.S. Patent No. 5,620,025 (hereinafter "Chilcoat"). The Office Action characterizes Chilcoat as disclosing a fluid distribution system similar to that specified in Claim 34. Applicant respectfully disagrees with this characterization of Chilcoat.

In essence, Chilcoat is directed toward a jet mixer 10 having a self-centering liquid bearing for centering the barrel portion 110 of a hub 90 relative to an exterior sleeve member 160. The mixing device 10 is positioned within a container 12, and includes fins 80 attached to the sleeve 160 and rotatable therewith to mix the contents of the container 12. Fluid reaches the interior of barrel portion 110 through a conduit 60 connected to a stem section 136 which in turn is in fluid flow communication with the lower end of barrel portion 110 so that fluid enters the barrel portion from one end thereof. The fluid that reaches the barrel portion 110 flows outwardly through radial holes 114 formed in the barrel portion and into the interior of the sleeve portion 160. A portion of such fluid passes between the tapered end sections 116 and 118 of the barrel portion and close fitting upper and lower ring members 200, and then exiting the sleeve portion 160 through annular slots 92 and 94.

A majority of the fluid that exits the barrel 110 through radial holes 114 then travels through tubes 86 fitted into openings 176 formed in sleeve 160. The tubes 86 extend outwardly from the sleeve 160 along a corresponding fin 80 to terminate at nozzles 88 disposed

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transversely to the plane of the fins. The fluid that exits through the nozzles 88 imparts a rotary force on fins 80 to mix the fluid contained within the container 12.

The specification and claims of Chilcoat are directed to how the various gaps between the ring members 200 of the sleeve 160 and the barrel 110 control the fluid flow therebetween to create a self-centering effect. As explained in the Chilcoat specification, a certain percentage of a fluid flowing through the hub 90 is used for providing the self-centering bearing function and the rest of the fluid is used to generate the thrust force to rotate the mixer fins. Thus, it is clear that the jet mixer in Chilcoat is both structurally and functionally quite different from the present invention.

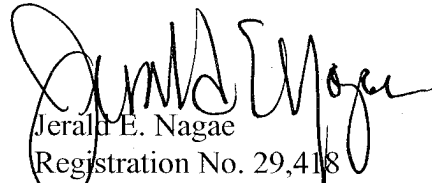
Nonetheless, Claim 34 of the present invention has been revised to facilitate examination thereof. In this regard, Claim 34 as amended specifies that the process fluid inlet to the rotary coupling intersects the annulus at a direction radially of the center of rotation of the coupling. Moreover, process fluid flows through the coupling through passageways extending in a direction transversely to the annulus. By this construction, it is possible that large volumes of processing fluid can enter and pass through the rotary coupling. This is important for the successful operation of agitating retorts.

As noted above, in Chilcoat, fluid enters hub 90 endwise thereof, and thus, endwise relative to barrel 110. Moreover, fluid exits the barrel 110 radially thereof through openings 114 and also radially relative to sleeve 160 through openings 176 which are in fluid flow connection with adjacent ends of tubes 86. Thus, the structure of Claim 34, as amended, is neither disclosed nor suggested by Chilcoat.

Based on at least the foregoing amendments and remarks, applicant respectfully submits that Claims 34 and 35 are now in condition for allowance. If the Examiner has any questions in this regard, he is requested to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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